

**Description:** In these projects we will apply what we've learned in class to real-world datasets for analysis.

Tasks:

1. Using the **50\_AdAgency.csv** file provided in the datasets zip file, create custom functions that will:
  - a) Calculate summary statistics for a dataframe and apply it to this dataset. You may break up your functions for numerical and categorical processes into different functions as needed.
  - b) Plot single-variable graphs for the entire dataframe for data exploration (for numerical data, such as histograms, boxplots, etc., for categorical data, bar graphs, pie charts, etc.)
  - c) Apply a distance metric to the entire dataframe (you may remove the categorical variable for this task).

**Submission:** Write up a work document describing your code and the results obtained. Include with your submission your R code file.